AMENDMENTS TO THE CLAIMS

Claim 1 (Cancelled)

2. (Currently Amended) An image processing apparatus for converting ~~generation of an outputting image by color-processing to convert~~ a color image data described in ~~an outputting~~ control language of ~~for~~ an output unit to a ~~being used into~~ color image ~~data~~ adapted for said output unit, the image processing apparatus comprising ~~wherein photo image processing means for processing a photo image having color information by a pixel processing means for processing a photo image generated from bit map data comprises~~:

color number compacting means for ~~deciding on at least one kind of representative color by~~ compacting the color image data of a ~~said~~ photo image by clustering pixels within a specific area according to the color information of each pixel and deciding at least one representative color of the clustered pixel group;

representative color processing means for color-processing of the ~~said~~ representative color; and

image restoring means for converting said photo image to a pixel image ~~into said bit map image~~ on the basis of said color-processed representative color.

3. (Currently Amended) An image processing apparatus for converting ~~generation of an outputting image by color-processing to convert~~ a color image data described in ~~an outputting~~ control language of ~~for~~ an output unit to a ~~being used into~~ color image ~~data~~ adapted for said output unit, said image processing apparatus comprising:

object image separating means for separating said color image data into a command image generated by ~~the~~ a drawing command <u>as a control language</u> for every graphic or text and a photo image having color information ~~by a~~ <u>of each</u> pixel, ~~generated from the bit map data~~ on the basis of information contained in said outputting control language;

command image processing means for generating a first pixel image by performing said color-processing on <u>the</u> color data of said command image on the basis of color palette information given to a region specified by the drawing command ~~and~~;

photo image processing means for generating a second pixel image ~~by performing said color-processing on the color data of said photo image~~; and

image synthesizing means for generating said outputting image by synthesizing said first pixel image and said second pixel image<u>; wherein</u>

<u>the photo image processing means comprises</u>

<u>color number compacting means for compacting the color image data of a photo image by clustering pixels within a specific area according to the color information of each pixel and deciding at least one representative color of the clustered pixel group,</u>

<u>representative color processing means for color-processing of the representative color, and</u>

<u>image restoring means for converting the photo image to a pixel image on the basis of the color-processed representative color.</u>

4. (Currently Amended) [[The]] <u>An</u> image processing apparatus <u>for converting color image data described in control language of an output unit to a color image adapted for said</u>

output unit, the ~~as defined in claim 1 wherein said command~~ image processing apparatus ~~means~~ comprising:

object image separating means for separating the color image data into a command image generated by a drawing command as a control language for every graphic or text and a photo image having color information of each pixel on the basis of information contained in the outputting control language;

command image processing means for generating a first pixel image by performing said color-processing on the color data of the command image on the basis of color palette information given to a region specified by the drawing command;

photo image processing means for generating a second pixel image; and

image synthesizing means for generating the outputting image by synthesizing the first pixel image and the second pixel image, wherein

the command image processing means comprises

color palette information extracting means for extracting ~~said~~ color palette information on said command image;

extracted palette color processing means for performing said color-processing on the basis of said color palette information; and

image drawing means for converting said command image into said first pixel image on the basis of said color-processed color palette information, and wherein

the photo image processing means comprises

color number compacting means for compacting the color image data of a photo image by clustering pixels within a specific area according to the color information of each pixel and deciding at least one representative color of the clustered pixel group,

<u>representative color processing means for color-processing of the representative</u>

<u>color, and</u>

<u>image restoring means for converting the photo image into the second pixel image</u>

<u>on the basis of said color-processed representative color.</u>

Claim 5 (Cancelled)

6. (Currently Amended) The image processing apparatus as defined in <u>any one of</u> ~~claim~~

<u>claims</u> 2<u>, 3 and 4</u> wherein said color number compacting means comprises:

image dividing means for dividing said photo image into a plurality of image blocks; and

representative color deciding means for deciding on at least one kind of representative

color for each of said blocks on the basis of color data statistical distribution of pixels in said

block.

7. (Original) The image processing apparatus as defined in claim 6 wherein said

representative color deciding means comprises:

initializing means for deciding on an initial representative color vector from a group of

color vectors with the color data - of the respective color pixels within a specific region obtained

from the object image - as factor;

division axis deciding means for deciding on the axis direction in which each cluster

obtained at the present moment is divided;

cluster dividing means for replacing the representative color vector of the object cluster

with two tentative representative color vectors which are a certain distance apart with the present

position of the representative color vector of the object cluster as center in the axis direction

obtained by said division axis deciding means;

cluster representative deciding means for deriving representative color vectors

representing the respective clusters by classifying into the respective clusters groups of all the

color vectors within a specific region on the basis of the tentative representative color vectors

obtained by said cluster dividing means; and

convergence judging means for judging whether the representative color vectors

converge by comparing the tentative representative color vector obtained by said cluster dividing

means and the representative color vector obtained by said cluster representative deciding means.

8. (Original) The image processing apparatus as defined in claim 7 which further

comprises cluster division end judging means for judging whether the number of the latest

representative color vectors found converged by said convergence judging means and the

clusters represented by them satisfies the pre-set specific number of cluster divisions.

9. (Original) The image processing apparatus as defined in claim 8 which comprises

representative information outputting means for outputting the latest representative color vectors

and information on the clusters to which the color vectors of the respective pixels belong - with

regard to all the pixels within the object region area - when said cluster division end judging

means judges that said cluster division is over.

10. (Currently Amended) The image processing apparatus as defined in claim 6 wherein

said representative color deciding means comprises:

initializing means for deciding on an initial representative color vector from a group of color vectors with the color data - of the respective color pixels within a specific region obtained from the object image - as factor,

in-cluster variance deriving means for calculating the variance of distance between the representative color representing the vectors clusters obtained at the present moment and the color vectors belonging to said clusters;

division suspension judging means for judging whether to divide the clusters on the basis of the variance of the respective clusters obtained by said in-cluster variance deriving means,

division axis deciding means for - with regard to the respective clusters obtained at the present moment - deciding on the axis direction in which the clusters will be divided when said division suspension judging means 6+ judges that the division will not be suspended,

cluster dividing means for replacing the representative color vector of the object cluster with two tentative representative color vectors which are a certain distance apart with the present position of the representative color vector of the object cluster as center in the axis direction obtained by said division axis deciding means;

cluster representative deciding means for deriving representative color vectors representing the respective clusters by classifying into the respective clusters groups of all the color vectors within a specific region on the basis of the tentative representative color vectors obtained by said cluster dividing means; and

convergence judging means for judging whether the representative color vector converges by comparing the tentative representative color vector obtained by said cluster dividing means and the representative color vector obtained by said cluster representative deciding means.

11. (Original) The image processing apparatus as defined in claim 10 which further comprises cluster division end judging means for judging whether the number of the latest representative color vectors found converged by said convergence judging means and the clusters represented by them satisfies the pre-set specific number of cluster divisions.

12. (Original) The image processing apparatus as defined in claim 11 which comprises representative information outputting means for outputting the latest representative color vectors and information on the clusters to which the color vectors of the respective pixels belong - with regard to all the pixels within the object region - when said cluster division end judging means judges that said cluster division is over.

13. (Currently Amended) The image processing apparatus as defined in any one of ~~claim~~ claims 2, 3 and 4 wherein said image restoring means generates said second pixel image by restoring pixel images in all said image blocks after said representative colors are decided on for all said image blocks.

14. (Previously Presented) The image processing apparatus as defined in claim 2 wherein said image restoring means generates said second pixel image by carrying out a series of procedures for restoring the pixel image on each of said blocks in addition to deciding on said representative colors.

15. (Previously Presented) The image processing apparatus as defined in claim 2 which comprises image interpolation means for generating said second pixel image by interpolating the colors on the pixel image generated by image restoring means.

16. (Previously Presented) The image processing apparatus as defined in claim 2 wherein said photo image processing means comprises:

image smoothing means for generating said second pixel image by smoothing the colors on the pixel image generated by said image restoring means.

17. (Previously Presented) The image processing apparatus as defined in claim 2 wherein said color number compacting means comprises:

region adjusting means for generating the optimum image blocks by changing the size of said image blocks on the basis of the statistical distribution of the color data of the pixels in said image blocks.

18. (Original) The image processing apparatus as defined in claim 17 wherein said region adjusting means comprises:

luminance distribution deriving means for working out the mean luminance and luminance variance of the pixels in the object image block; and

block uniting means for uniting an object image block and its neighboring image block in case the difference between the object image block and its neighboring image block in the calculated mean luminance and luminance variance is smaller than a specific value.

19. (Currently Amended) An image processing apparatus for <u>converting</u> ~~generation of~~ ~~an outputting image in which~~ color image data <u>described in</u> ~~prepared by application is converted~~ ~~into an outputting~~ control language <u>of an</u> ~~for the~~ output unit <u>to a</u> ~~being used and held in a~~ ~~memory storage and at the same time the data is color-processed for conversion into~~ color <u>image</u> ~~data~~ adapted for said output unit, said image processing apparatus comprising:

color number compacting means for ~~deciding at least one kind of representative color by~~ compacting the color <u>image</u> data of <u>a</u> ~~said~~ photo image <u>by clustering pixels within a specific area</u> <u>according to the color information of each pixel and deciding at least one representative color of</u> <u>the clustered pixel group</u> ~~generated from bit map data contained in said color image data~~; and

outputting control language converting means for converting <u>to the</u> ~~into outputting~~ control language <u>of the output unit from the</u> ~~said~~ photo image <u>data having</u> ~~for which~~ the <u>decided</u> representative color<u>s</u> ~~is decided on~~.

20. (Currently Amended) An image processing apparatus for <u>converting</u> ~~generation of~~ ~~an outputting image in which~~ color image data <u>described in</u> ~~prepared by application is converted~~ ~~into an outputting~~ control language <u>of an</u> ~~for the~~ output unit <u>to a</u> ~~being used and held in a~~ ~~memory storage and at the same time the data is color-processed for conversion into~~ color <u>image</u> ~~data~~ adapted for said output unit, said image processing apparatus comprising:

object image separating means for separating said color image <u>data</u> into a command image generated by <u>a</u> drawing command <u>as a control language for every graphic and text</u> and a photo image having color information ~~by a~~ <u>of each</u> pixel<u>,</u> ~~generated from bit map data~~ on the basis of information contained in the color image data;

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color number compacting means for ~~deciding on at least one kind of representative color by~~ compacting the color <u>image</u> data of ~~said~~ <u>a</u> photo image <u>by clustering pixels within a specific area according to the color information of each pixel and deciding at least one representative color of the clustered pixel group</u>; and

outputting control language converting means for converting <u>to the</u> ~~into outputting~~ control language <u>of the output unit from the</u> ~~said command image and said~~ photo image <u>data having</u> ~~for which~~ the <u>decided</u> representative color<u>s</u> ~~is decided on~~.

21. (Original) The image processing apparatus as defined in claim 20 which comprises command image processing means for generating a first pixel image by performing said color-processing on color data of said command image in said outputting control language on the basis of color palette information given to the bits belonging to a region specified by the drawing command.

22. (Previously Presented) The image processing apparatus as defined in claim 19 which comprises photo image processing means for generating a second pixel image by performing said color-processing on the color data of said photo image in said outputting control language.

23. (Currently Amended) The image processing apparatus as defined in claim 19<u>,</u> which comprises:

object image separating means for separating <u>the color image data</u> ~~said outputting control language~~ into a command image <u>generated by a drawing command as a control language for</u>

every graphic and text and a photo image having color information by a of each pixel on the basis of information contained in the color image data said outputting control language;

command image processing means for generating a first pixel image by performing said color-processing on color data of said command image on the basis of color palette information given to the bits belonging to a region specified by the drawing command;

photo image processing means for generating a second pixel image by performing said color-processing on the color data of said photo image; and

image synthesizing means for generating said outputting image by synthesizing said first pixel image and said second pixel image, wherein

the command image processing means comprises

color palette information extracting means for extracting a color palette information on the command image;

image drawing means for converting the command image into the first pixel image on the basis of the color-processed color palette information, and wherein the photo image processing means comprises

representative color processing means for color-processing of the representative color, and

image restoring means for converting the photo image into the second pixel image on the basis of said color-processed representative color.

24. (Previously Presented) The image processing apparatus as defined in claim 21 wherein said command image processing means comprises:

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color palette information extracting means for extracting said color palette information on said command image;

extracted palette color processing means for performing said color-processing on the basis of said color palette information; and

image drawing means for converting said command image into said first pixel image on the basis of said color-processed color palette information.

25. (Currently Amended) The image processing apparatus as defined in claim 22 <u>or claim 59</u> wherein said photo image processing means comprises:

representative color processing means for color-processing of said representative color; and

image restoring means for converting said photo image into said second pixel image on the basis of said color-processed representative color.

26. (Previously Presented) The image processing apparatus as defined in claim 19 wherein said color number compacting means comprises:

image dividing means for dividing said photo image into a plurality of image blocks; and

representative color deciding means for deciding on at least one kind of representative color for each of said blocks on the basis of color data statistical distribution of pixels in said block.

27. (Original) The image processing apparatus as defined in claim 26 wherein said representative color deciding means comprises:

initializing means for deciding on an initial representative color vector from a group of color vectors with the color data - of the respective color pixels within a specific region obtained from the object image - as factor,

division axis deciding means for deciding on the axis direction in which the respective clusters obtained at the present moment are divided;

cluster dividing means for replacing the representative color vector of the object cluster with two tentative representative color vectors which are a certain distance apart with the present position of the representative color vector of the object cluster as center in the axis direction obtained by said division axis deciding means;

cluster representative deciding means for deriving representative color vectors representing the respective clusters by classifying into the respective clusters groups of all the color vectors within a specific region on the basis of the tentative representative color vectors obtained by said cluster dividing means; and

convergence judging means for judging whether the representative color vector converges by comparing the tentative representative color vector obtained by said cluster dividing means and the representative color vector obtained by said cluster representative deciding means.

28. (Original) The image processing apparatus as defined in claim 27 which further comprises cluster division end judging means for judging whether the number of the latest representative color vectors found converged by said convergence judging means and the clusters represented by them satisfies the pre-set specific number of cluster divisions.

29. (Original) The image processing apparatus as defined in claim 28 which comprises representative information outputting means for outputting the latest representative color vectors and information on the clusters to which the color vectors of the respective pixels belong - with regard to all the pixels - when said cluster division end judging means judges that said cluster division is over.

30. (Original) The image processing apparatus as defined in claim 26 wherein said representative color deciding means comprises:

initializing means for deciding on an initial representative color vector from a group of color vectors with the color data - of the respective color pixels within a specific region obtained from the object image - as factor;

in-cluster variance deriving means for calculating the variance of distance between the representative color representing the vectors clusters obtained at the present moment and the color vectors belonging to the clusters;

division suspension judging means for judging whether to divide the clusters on the basis of the variance of the respective clusters obtained by said in-cluster variance deriving means,

division axis deciding means for deciding on the axis direction in which the respective clusters obtained at the present moment will be divided when said division suspension judging means judges that the division will not be suspended,

cluster dividing means for replacing the representative color vector of the object cluster with two tentative representative color vectors which are a certain distance apart with the present position of the representative color vector of the object cluster as center in the axis direction obtained by said division axis deciding means;

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cluster representative deciding means for deriving representative color vectors representing the respective clusters by classifying into the respective clusters groups of all the color vectors within a specific region, on the basis of the tentative representative color vectors obtained by said cluster dividing means; and

convergence judging means for judging whether the representative color vector converges by comparing the tentative representative color vector obtained by said cluster dividing means and the representative color vector obtained by said cluster representative deciding means.

31. (Original) The image processing apparatus as defined in claim 30 which further comprises cluster division end judging means for judging whether the number of the latest representative color vectors found converged by said convergence judging means and the clusters represented by them satisfies the pre-set specific number of cluster divisions.

32. (Original) The image processing apparatus as defined in claim 31 which comprises representative information outputting means for outputting the latest representative color vectors and information on the clusters to which the color vectors of the respective pixels belong - with regard to all the pixels - when said cluster division end judging means judges that said cluster division is over.

33. (Previously Presented) The image processing apparatus as defined in claim 19 wherein said color number compacting means comprises;

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region adjusting means for generating the optimum image blocks by changing the size of said image blocks on the basis of the statistical distribution of the color data of the pixels in said image blocks.

34. (Original) The image processing apparatus as defined in claim 33 wherein said region adjusting means comprises:

luminance distribution deriving means for working out the mean luminance and luminance variance of the pixels in the object image block; and

block uniting means for uniting an object image block and its neighboring image block in case the difference between the object image block and its neighboring image block in the calculated mean luminance and luminance variance is smaller than a specific value.

35. (Original) The image processing apparatus as defined in claim 25 wherein said image restoring means generates said second pixel image by restoring pixel images in all said image blocks after said representative colors are decided on for all said image blocks.

36. (Original) The image processing apparatus as defined in claim 25 wherein said image restoring means generates said second pixel image by carrying out a series of procedures for restoring the pixel image on each of said blocks in addition to deciding on said representative colors.

37. (Previously Presented) The image processing apparatus as defined in claim 22 wherein said photo image processing means comprises:

image interpolation means for generating said second pixel image by interpolating the colors on the pixel image generated by said image restoring means.

38. (Previously Presented) The image processing apparatus as defined in claim 22 wherein said photo image processing means comprises:

image smoothing means for generating said second pixel image by smoothing the colors on the pixel image generated by said image restoring means.

39. (Currently Amended) The image processing apparatus as defined in claim [[1]] 2 wherein said outputting control language is a printer description language.

40. (Currently Amended) The image processing apparatus as defined in claim [[1]] 2 wherein said outputting control language is a display control language adapted for the display unit.

41. (Currently Amended) The image processing apparatus as defined in claim [[1]] 2 wherein said outputting control language is a language adapted for GDI (Graphical Device Interface).

Claim 42 (Cancelled)

43. (Currently Amended) An image processing method for converting generation of an outputting image by color processing to convert a color image data described in an outputting

control language <u>of an output unit to a color image</u> adapted for said output unit ~~into color data for~~ ~~said output unit wherein the photo image processing procedure for generation of a pixel image~~ ~~corresponding to a photo image having color information by a pixel generated from bit map data,~~ <u>the image processing method</u> comprising the steps of:

compacting the color <u>image</u> data of <u>a</u> ~~the~~ photo image <u>by clustering pixels within a</u> <u>specific area according to the color information of each pixel and deciding on</u> ~~to decide~~ at least one ~~kind of~~ representative color <u>of the clustered pixel group</u>;

color-processing said representative colors; and

restoring an image by converting said photo image into a pixel image on the basis of said color-processed representative colors.

44. (Currently Amended) An image processing method for <u>converting</u> ~~generation of an~~ ~~outputting image by color-processing to convert~~ a color image <u>data</u> described in ~~an outputting~~ control language <u>of an output unit to a color image</u> adapted for said output unit ~~into color data for~~ ~~said output unit~~, said image processing method comprising the steps of:

separating said color image <u>data</u> into a command image generated by <u>a</u> ~~the~~ drawing command <u>as a control language for every graphic or text</u> and a photo image having color information ~~by a~~ <u>of each</u> pixel ~~generated by the bit map data~~ on the basis of information contained in said outputting control language;

processing the command image to generate a first pixel image by performing <u>the steps of</u> <u>extracting color palette information on the command image,</u>

color-processing ~~on the color data of said command image~~ on the basis of <u>the</u>

color palette information ~~given to the bits belonging to a region specified by the drawing~~

~~command,~~ and

<u>converting the command image into the first pixel image on the basis of the color-</u>

<u>processed color palette information; and</u>

processing the photo image for generating a second pixel image by performing <u>the steps</u>

<u>of</u>

<u>compacting the color image data of the photo image by clustering pixels within a</u>

<u>specific area according to the color information of each pixel and deciding at least one</u>

<u>representative color of the clustered pixel group,</u> ~~said~~

color-processing <u>the representative color, and</u> ~~on the color data of said photo~~

~~image~~

<u>converting the photo image into the second pixel image on the basis of the color-</u>

<u>processed representative color;</u> and

generating said outputting image by synthesizing said first pixel image and said second

pixel image.

45. (Previously Presented) The image processing method as defined in claim 43 wherein

said photo image processing step divides the photo image into a plurality of blocks, decides at

least one representative color within each of said image blocks and performs color-processing on

said representative color.

Claim 46 (Cancelled)

47. (Currently Amended) An image processing method for <u>converting</u> ~~generation of an outputting image in which~~ color image data <u>described in</u> ~~prepared by application is converted into an outputting~~ control language <u>of an</u> ~~for the~~ output unit <u>to a</u> ~~being used and held in a memory storage and at the same time the data is color-processed for conversion into~~ color <u>image</u> ~~data~~ adapted for said output unit, said image processing method comprising the steps of:

compacting the color <u>image</u> data <u>by clustering pixels within a specific area according to the color information of each pixel and deciding at least one representative color of the clustered pixel group</u> ~~of the photo image having color information by a pixel generated from bit map data contained in said color image data to decide at least one kind of representative color~~; and

converting <u>to the</u> ~~into the outputting~~ control language <u>of the output unit from</u> said photo image <u>data having the decided</u> ~~of which the~~ representative color<u>s</u> ~~is decided on~~.

48. (Currently Amended) An image processing method for <u>converting</u> ~~generation of an outputting image in which~~ color image data <u>described in</u> ~~prepared by application is converted into an outputting~~ control language <u>of an</u> ~~for the~~ output unit <u>to a</u> ~~being used and held in a memory storage and at the same time the data is color-processed for conversion into~~ color <u>image</u> ~~data~~ adapted for said output unit, said image processing method comprising the steps of:

separating said color image <u>data</u> into a command image generated by <u>a</u> ~~the~~ drawing command <u>as a control language for every graphic or text</u> and a photo image having color information ~~by a~~ <u>of each</u> ~~pixel generated by the bit map~~ data on the basis of information contained in said outputting control language;

compacting the color data of the photo image <u>by clustering pixels within a specific area</u>

<u>according to the color information of each pixel and deciding at least one representative color</u>

<u>from color information of the clustered pixels</u> ~~to decide on at least one kind of representative~~

~~color~~; and

converting <u>to the</u> ~~into the outputting~~ control language <u>of the output unit from</u> ~~said~~

~~command image and~~ said photo image <u>data having the decided</u> ~~of which the~~ representative color<u>s</u>

~~is decided on.~~

49. (Previously Presented) The image processing method as defined in claim 47 which

further comprises the steps of:

color-processing said representative colors on the photo image converted into said

outputting control language; and

restoring an image by converting said photo image into said second pixel image on the

basis of said color-processed representative color.

50. (Currently Amended) The image processing method as defined in claim [[42]] <u>43</u>

wherein said outputting control language is Printer Description Language.

51. (Currently Amended) The image processing method as defined in claim [[42]] <u>43</u>

wherein said outputting control language is a display control language adapted for the display

unit.

52. (Currently Amended) The image processing method as defined in claim [[42]] 4̲3̲

wherein said outputting control language is a language adapted for GDI (Graphical Device

Interface).

53. (Original) A recording medium in which an image processing procedure for

generating an outputting image by color-processing for converting a color image described in an

outputting control language adapted for the output unit being used into color data adapted for the

output unit is recorded as computer program wherein the following steps are recorded as the

photo image processing procedure for processing a photo image having color information by a

pixel generated from a pixel image:

compacting the color data of the photo image to decide on at least one kind of

representative color;

color-processing said representative colors; and

restoring an image by converting said photo image into a pixel image on the basis of said

color processed representative color.

54. (Currently Amended) A recording medium in which an image processing procedure

for generating an outputting image by color-processing for converting a color image described in

an outputting control language adapted for the output unit being used into color data adapted for

the output unit is recorded as computer program wherein the following steps are recorded:

.   object image separating step for separating said color data into a command image

generated by [[the]] a̲ drawing command and a photo image having color information by a pixel

generated by the bit map data on the basis of information contained in said outputting control language;

command image processing step for generation of the first [[bid]] bit map image by color-processing the color data of said command image on the basis of color palette information given to bits belonging to a region specified by said drawing command;

photo image processing step for generation of the second pixel image by performing said color-processing on the color data of said photo image; and

image synthesizing step for generating said outputting image by synthesizing said first pixel image and said second pixel image.

55. (Previously Presented) The recording medium as defined in claim 53 wherein the following steps are recorded:

color number compacting step for deciding on at least one representative color by compacting the color data of said photo image;

representative color-processing step for color-processing said representative color; and

image restoring step for converting said photo image into said second pixel image on the basis of said color-processed representative color.

56. (Currently Amended) A recording medium in which an image processing procedure for generating an outputting image by converting color image data prepared by application into an outputting control language adapted for the output unit being used, holding in a memory storage and at the same time performing color-processing for converting into color data adapted for the output unit is recorded as computer program wherein the following steps are recorded:

~~Color~~ color number compacting step for deciding at least one kind of representative color by compacting the color data of the photo image having color information by a pixel generated from bit map data contained in said color image data; and

outputting control language converting step for converting into the outputting control language said photo image of which said representative color is decided on.

57. (Currently Amended) A recording medium in which an image processing procedure for generation of an outputting image by converting color image data prepared by application into an outputting control language and holding the data in a memory storage and at the same time by color-processing for conversion into color data adapted for said output unit is recorded as computer program wherein the following steps are recorded:

object image separating step for separating said color image data into a command image generated by [[the]] a drawing command and a photo image having color information by a pixel generated by the bit map data on the basis of information contained in said color image data;

color number compacting step for deciding on at least one representative color by compacting the color data of said photo image; and

outputting control language converting step for converting into the outputting control language said command image and said photo image of which said representative color is decided on.

58. (Previously Presented) The recording medium as defined in claim 57 wherein the following steps are recorded:

representative color processing step for further color-processing said representative color on the photo image converted into said outputting control language; and

image restoring step for converting said photo image into said second pixel image on the basis of said color-processed representative color.

59. (New) The image processing apparatus as defined in claim 19, further comprising photo image processing means provided with:

representative color processing means for color-processing of the representative color; and

image restoring means for converting the photo image into the second pixel image on the basis of the color-processed representative color.